

## **David A. Marks**

### **EDUCATION**

- 1998     **M.S. - Meteorology:** Saint Louis University  
          **Thesis:** Case study of a TOGA-COARE mesoscale convective system using dual-Doppler radar data.
- 1995     **B.S. – Meteorology:** Parks College of Saint Louis University  
          **Graduated Summa cum Laude**

### **EXPERIENCE**

- 4/00 to     **Assistant Research Scientist:** NASA/GSFC & School of Computational Science, George Mason University.
- Present     *(NASA/GSFC Tropical Rainfall Measuring Mission (TRMM) Satellite Validation Office).*
- Quality control of radar data for Ground Validation Program.
  - Point of contact for several validation sites.
  - Generation, archival, and evaluation of reflectivity and rain map products.
  - Software testing, evaluation, and implementation.
  - Scenario testing in creation of experimental products.
  - Operational environment development and maintenance.
  - Field experiment and conference participation.
- 1/98-3/00 **Research Analyst:** Joint Center for Earth Systems Technology, University of Maryland, Baltimore County.  
*(NASA/GSFC Tropical Rainfall Measuring Mission (TRMM) Satellite Validation Office).*
- 4/95-4/97 **NASA Graduate Student Research Program Fellow:** Department of Atmospheric Sciences, Saint Louis University.  
*(A two-year research fellowship sponsored by NASA/GSFC Code 912.1 TRMM Office).*
- 1/94-4/95 **Research Assistant:** Department of Meteorology, Parks College of Saint Louis University.

### **HONORS AND AWARDS**

- 2003     **NASA/GSFC Outstanding Scientific Support and Leadership Award in support of the TRMM Ground Validation Program.**
- 1999     **NASA/GSFC Outstanding Achievement Award in support of the TRMM Ground Validation Program.**
- 1/93-4/94 **The National Dean's List.**  
**Who's Who Among Students in American Universities & Colleges.**  
**Academic scholarships awarded from Parks College of Saint Louis University.**

### **FIELD EXPERIMENT PARTICIPATION**

- 2003     **Keys Area Precipitation Project 2 (KAPP2)** – Rainfall Measurement in the Florida Keys.
- 2002     **Keys Area Precipitation Project (KAPP)** – *Rainfall Measurement in the Florida Keys.*
- 2001     **Keys Area Microphysics Project (KAMP)** – *Radar Operation / Rainfall Measurement in the Florida Keys.*
- 1999     **Kwajalein Experiment (KWAJEX)** – *Rainfall Measurement in the Republic of Marshall Islands.*

### **MEMBERSHIPS**

- Member:** American Meteorological Society  
**Member:** Alpha Chi National College Honor Scholarship Society

### **SELECTED FOR MEMBERSHIP**

- Alpha Sigma Nu Jesuit Honor Society of Saint Louis University  
Golden Key National Honor Society

## PUBLICATIONS

### Refereed Journals

- E. Amitai, D. B. Wolff, D. A. Marks, and D. S. Silberstein, **2002**, "Radar rainfall estimation: Lessons learned from the NASA/TRMM validation program." Second European Conference on Radar Meteorology (ERAD), November 18-22, Delft, The Netherlands. ERAD Publication Series, **1**, 255-260 (Copernicus GmbH peer reviewed publications, ISBN 3-936586-04-7).
- Marks, D.A., M. S. Kulie, M. Robinson, D.S. Silberstein, D. B. Wolff, B. S. Ferrier, E. Amitai, B. Fisher, J. Wang, D. and O. Thiele, **2000**: Climatological processing and product development for the TRMM Ground Validation Program. *Physics and Chemistry of the Earth, (PCE), Part B: Hydrology, Oceans and Atmosphere*, **25**, 871-876. Preprints and a Keynote presentation, *First European Conference on Radar Meteorology (ERAD)*, September 4-8, Bologna, Italy.
- Robinson M., M. S. Kulie, D. Silberstein, D. A. Marks, D. B. Wolff, E. Amitai, B. S. Ferrier, B. L. Fisher, and J. Wang, **2000**: Evolving improvements to TRMM Ground Validation rainfall estimates. *Physics and Chemistry of the Earth (PCE), Part B: Hydrology, Oceans and Atmosphere*, **25**, 971-976.

### Conference Proceedings

- Amitai, E., L. Liao, D. B. Wolff, D. A. Marks, and D. S. Silberstein, **2003**. "Challenges and Proposed Solutions for Validation of Rain Rate Estimates From Space." Proceedings, IEEE International Geoscience and Remote Sensing Symposium. Toulouse, France. July 2003.
- Amitai, E., D.B. Wolff, M. Robinson, D.S. Silberstein, D.A. Marks, M.S. Kulie, and B. Fisher, **2001**: Methodologies for evaluating the accuracy of TRMM Ground Validation rainfall products. Preprints, *30<sup>th</sup> International Conference on Radar Meteorology*, Munich, Germany, July 19-24, AMS.
- Kulie, M. S., M. Robinson, D. A. Marks, B. S. Ferrier, D. Rosenfeld, and D. B. Wolff, **1999**: Operational processing of ground validation data for the Tropical Rainfall Measuring Mission, Preprints, *29<sup>th</sup> International Conference on Radar Meteorology*, Montreal, Canada, July, 12-16, Montreal, Canada, AMS, 736-739.
- Marks, D. A., D. S. Silberstein, D. B. Wolff, E. Amitai, J. L. Pippitt, and R. J. Lawrence, **2003**. The TRMM Ground Validation Effort at NASA-GSFC. Validating surface rainfall estimates. Preprints and Poster, *31<sup>st</sup> International Conference on Radar Meteorology*, Seattle, Washington, Aug 6-12 2003, AMS, p 415-418.
- Marks, D. A., M. S. Kulie, M. Robinson, B. S. Ferrier, and E. Amitai, **1999**: Obtaining standardized reference rainfall products for TRMM ground validation – an operational technique. Preprints, *29<sup>th</sup> International Conference on Radar Meteorology*, Montreal, Canada, July 12-16, AMS, Boston, MA. 744-747.
- Robinson, M., D. A. Marks, M. S. Kulie, and B. S. Ferrier, **1999**: Seasonal characteristics of non meteorological radar reflectivity returns in East Central Florida and their impact on TRMM ground validation. Preprints, *29<sup>th</sup> International Conference on Radar Meteorology*, Montreal, Canada, July 12-16, Montreal, Canada, AMS, 740-743.
- Wolff, D. B., J. Gerlach, D. A. Marks, A. Tokay, B. Fisher, D. S. Silberstein, and J. Wang, **2003**, "On the Characteristics of Precipitation in the Florida Keys: The Keys Area Precipitation Project." Preprints and Poster, *31<sup>st</sup> International Conference on Radar Meteorology*, Seattle, WA, August, 6-12 2003, AMS, p 437-440.